



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R05-OAR-2014-0658; FRL-9943-46-Region 5]

**Air Plan Approval; Ohio; Base Year Emission Inventories for the
2008 8-Hour Ozone Standard**

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is approving, under the Clean Air Act (CAA), a State Implementation Plan (SIP) revision submitted by the Ohio Environmental Protection Agency (OEPA) on July 18, 2014, to address emission inventory requirements for the Cleveland-Akron-Lorain, Ohio (OH) and Columbus, OH ozone nonattainment areas and for the Ohio portion of the Cincinnati, Ohio-Kentucky-Indiana ozone nonattainment area under the 2008 ozone National Ambient Air Quality Standard (NAAQS or standard). The CAA requires emission inventories for all ozone nonattainment areas. The emission inventories contained in Ohio's July 18, 2014, submission meet this CAA requirement. EPA is also confirming that the state of Ohio has acceptable stationary source annual emission statement regulations, which have been previously approved by EPA.

DATES: This direct final rule will be effective **[insert date 60 days after publication in the Federal Register]**, unless EPA

receives adverse comments by **[insert date 30 days after publication in the Federal Register]**. If adverse comments are received by EPA, EPA will publish a timely withdrawal of the direct final rule in the Federal Register informing the public that the rule will not take effect.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA-R05-OAR-2014-0658 at <http://www.regulations.gov> or via email to Aburano.Douglas@epa.gov. For comments submitted at [Regulations.gov](http://www.Regulations.gov), follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from [Regulations.gov](http://www.Regulations.gov). For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the "For Further Information Contact" section. For the full EPA public comment policy, information about CBI or multimedia

submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Edward Doty, Attainment Planning and Maintenance Section, Air Programs Branch (AR-18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886-6057, Doty.Edward@epa.gov.

SUPPLEMENTARY INFORMATION:

Throughout this document, whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. The 2008 Ozone NAAQS and Emission Inventory Requirements
- II. Ohio's Emission Inventories
 - A. Base Year
 - B. How Did the State Develop the Emission Inventories?
 - C. Source Emission Statements
- III. EPA's Evaluation
 - A. Did the State Adequately Document the Derivation of the Emission Estimates?
 - B. Did the State Quality Assure the Emission Estimates?
 - C. Did the State Provide for Public Review of the Requested SIP Revision?
- IV. Final Action
- V. Statutory and Executive Order Reviews

I. The 2008 Ozone NAAQS and Emission Inventory Requirements

On March 12, 2008, EPA promulgated a revised 8-hour ozone NAAQS of 0.075 parts per million (ppm). See 73 FR 16436 (March 27, 2008). The Cleveland-Akron-Lorain, Columbus, and Cincinnati areas were designated as marginal nonattainment areas for the 2008 ozone NAAQS. See 77 FR 30088 (May 21, 2012). The Cleveland-Akron-Lorain nonattainment area includes Ashtabula, Cuyahoga, Geauga, Lake, Lorain, Medina, Portage, and Summit Counties. The Columbus nonattainment area includes Delaware, Fairfield, Franklin, Knox, Licking, and Madison Counties. The Ohio portion of the Cincinnati nonattainment area includes Butler, Clermont, Clinton, Hamilton, and Warren Counties.

CAA sections 172(c)(3) and 182(a)(1), 42 U.S.C. 7502(c)(3) and 7511a(a)(1), require states to develop and submit, as SIP revisions, emission inventories for all areas designated as nonattainment for any NAAQS, including the ozone NAAQS. An emission inventory for ozone is an estimation of actual emissions of air pollutants that contribute to the formation of ozone in an area. Ozone is a gas that is formed by the reaction of Volatile Organic Compounds (VOC) and Oxides of Nitrogen (NO_x) in the atmosphere in the presence of sunlight (VOC and NO_x are referred to as ozone precursors). Therefore, an emission inventory for ozone focuses on the emissions of VOC and NO_x. VOC is emitted by many types of pollution sources, including

power plants, industrial sources, on-road and off-road mobile sources, smaller stationary sources, collectively referred to as area sources, and biogenic sources¹. NO_x is primarily emitted by combustion sources, both stationary and mobile.

Emission inventories provide emissions data for a variety of air quality planning tasks, including establishing baseline emission levels (anthropogenic [manmade] emissions associated with ozone standard violations), calculating emission reduction targets needed to attain the NAAQS and to achieve reasonable further progress toward attainment of the ozone standard (not required in the areas considered here), determining emission inputs for ozone air quality modeling analyses, and tracking emissions over time to determine progress toward achieving air quality and emission reduction goals. As stated above, the CAA requires the states to submit emission inventories for areas designated as nonattainment for ozone. For the 2008 ozone NAAQS, EPA has recommended that states submit typical summer day emission estimates for 2011 (78 FR 34178, 34190, June 6, 2013). However, EPA also allows states to submit base year emissions for other years during a recent ozone standard violation period. States are required to submit estimates of VOC and NO_x emissions for four general classes of anthropogenic sources: stationary

¹ Biogenic emissions are produced by living organisms and are typically not included in the base year emission inventories, but are considered in ozone modeling analyses, which must consider all emissions in a modeled area.

point sources; area sources; on-road mobile sources; and off-road mobile sources.

II. Ohio's Emission Inventories

On July 18, 2014, Ohio submitted a SIP revision addressing the VOC and NO_x emission inventory requirement for the Cleveland-Akron-Lorain and Columbus ozone nonattainment areas and for the Ohio portion of the Cincinnati ozone nonattainment area. Tables 1, 2, and 3 summarize the 2008 VOC and NO_x emissions for these three areas for a typical summer day (reflective of the summer period, when the highest ozone concentrations are expected in these nonattainment areas). The following acronyms are used in the emissions tables: Electric Generating Units (EGU); and Commercial Marine-Airplanes-Railroads (MAR).²

**Table 1. Cleveland Area 2008 Emission Inventory
(tons per day)**

Source Type	VOC	NO_x
Non-EGU Point	19.97	16.31
EGU Point	0.20	65.47
Area	96.81	12.71
On-Road Mobile	106.55	209.68
Off-Road Mobile	142.40	70.86
MAR	1.24	25.65
Totals	367.17	400.69

² MAR sources are not covered by the off-road mobile source emissions model used by the state. Ohio has relied on MAR emissions calculated and supplied through contractors, as discussed elsewhere in this rulemaking.

**Table 2. Columbus Area 2008 Emission Inventory
(tons per day)**

Source Type	VOC	NO_x
Non-EGU Point	2.73	7.56
EGU Point	0.00	0.00
Area	57.78	6.02
On-Road Mobile	123.41	231.72
Off-Road Mobile	38.06	40.72
MAR	0.37	6.79
Totals	222.35	292.81

**Table 3. Cincinnati Area³ 2008 Emission Inventory
(tons per day)**

Source Type	VOC	NO_x
Non-EGU Point	5.76	24.33
EGU Point	0.81	99.35
Area	54.25	7.17
On-Road Mobile	57.79	105.98
Off-Road Mobile	34.59	34.34
MAR	0.42	9.29
Totals	153.62	280.46

A. Base Year

OEPA chose 2008 as the base year for these emission inventories. Although EPA recommends the use of 2011 as the base year, as noted above, EPA also allows the consideration of other base years. OEPA chose 2008 because this is one of the three years, 2008 through 2010, of ozone data indicating violation of the ozone standard that were used to designate the three areas as nonattainment for the 2008 ozone standard.

³ Ohio portion only.

B. How Did the State Develop the Emission Inventories?

OEPA estimated VOC and NOx emissions for each county in the Cleveland-Akron-Lorain and Columbus ozone nonattainment areas and for the Ohio portion of the Cincinnati ozone nonattainment area. Emissions for the counties were totaled by source category for each ozone nonattainment area. To develop the VOC and NOx emission inventories, OEPA used the procedures summarized below.

The primary source of emissions data for non-EGU point sources was source-reported 2008 Emission Inventory Statements (EISs). Under the authority of Ohio Administrative Code (OAC) 3756-15-03, OEPA requires regulated stationary sources in the ozone nonattainment areas to submit EISs annually. An EIS contains detailed source type-specific or source unit-specific annual and seasonal actual emissions for all source units in a facility. The EIS data for all applicable facilities were used to calculate annual and summer day county-specific point source emissions. Because they are determinative, only the summer day emissions are summarized here.

EGU point source emissions were obtained from EPA's Clean Air Markets Division (CAMD). CAMD collects and processes EGU emissions nationally.

For all point sources, OEPA has provided a detailed list of major point source facilities and their associated annual and

summer day VOC and NO_x emissions within appendices C and D of their July 18, 2014, submittal.

For the area source emissions, OEPA relied on source type-specific emissions and emission factors provided by the Eastern Regional Technical Advisory Committee (ERTAC). Ohio and other states formed ERTAC to provide technical assistance in the analysis of air pollution. ERTAC defined the emission inventory source categories and derived the emission factors for each source category. ERTAC also derived the county-specific source activity levels for 2008 and provided these data to participating states.⁴ For some source categories, OEPA developed alternate methodologies, and/or subtracted point source emissions to avoid double-counting of emissions. In addition, some national emissions data obtained from EPA were allocated to county-specific emission levels based on local-to-national ratios of source activity levels.

In appendix F of the July 18, 2014, submittal, OEPA has documented area source emissions by Source Category Code (SCC) and county. In the July 18, 2014, submittal, OEPA has provided a detailed discussion of how the emissions were derived for each source category.

⁴ The county-specific area source emissions by source category were determined by multiplying the source category emission factor by the county-specific activity level.

On-road mobile source emissions were estimated using EPA's Motor Vehicle Emission Simulator 2010b (MOVES2010b) model and Vehicle Miles Travelled (VMT) data supplied by the Cleveland, Columbus, and Cincinnati metropolitan planning organizations (MPOs). The MOVES2010b model was run using area-specific input data, where available, and national average default data where area-specific data were not available. The MPOs' VMT data were derived for a typical summer day. Appendix G of the July 18, 2014, submittal thoroughly documents the calculation and spatial allocation of the on-road mobile source emissions.

Off-road mobile source emissions were estimated using EPA's National Mobile Inventory Model (NMIM). The emission estimates were processed through the Consolidated Community Emissions Processing Tool (CONCEPT) to spatially allocate the emissions to the county levels.

Because NMIM does not address MAR emissions, MAR emissions were separately estimated through contractor studies. These emission estimates were derived using county-specific activity levels and EPA-supplied emission factors. The calculated emissions were spatially allocated using CONCEPT.

OEPA applied standardized, EPA-recommended procedures and data completeness checks to quality assure (QA) (to assure data accuracy) and quality check (QC) (to assure data completeness) the emission calculations.

C. Source Emission Statements

Section 182(a)(3)(B) of the CAA requires states to include regulations in the SIP to require sources (source facilities) to submit annual statements characterizing sources of VOC and NOx emission within the source facilities and to report actual VOC and NOx emissions for these sources. As noted above, OEPA has authority under OAC 3745-15-03 to require NOx and VOC EIS submittals for regulated source facilities in the ozone nonattainment areas that emit greater than or equal to 25 tons/year of VOC or NOx during the reporting year. The EPA approved this rule into the Ohio SIP on September 27, 2007 (72 FR 54844). OEPA confirmed in the July 18, 2014, submittal that this approved SIP regulation remains in place and remains enforceable for the 2008 ozone standard.

III. EPA's Evaluation

EPA has reviewed Ohio's July 18, 2014, requested SIP revision for consistency with CAA and EPA emission inventory requirements. In particular, EPA has reviewed the techniques used by OEPA to derive and quality assure the emission estimates. EPA has also determined whether Ohio has provided the public with the opportunity to review and comment on the development of the emission estimates and the confirmation that source facility emission statements are required for the 2008

ozone standard and whether the state has addressed all public comments.

A. Did the State Adequately Document the Derivation of the Emission Estimates?

OEPA documented the procedures used to estimate the emissions for each of the major source types. The documentation of the emission estimation procedures is very thorough and is adequate for us to determine that Ohio followed acceptable procedures to estimate the emissions.

B. Did the State Quality Assure the Emission Estimates?

OEPA developed a quality assurance plan and followed this plan during various phases of the emissions estimation and documentation process to QA and QC the emissions for completeness and accuracy. These quality assurance procedures were summarized in the documentation describing how the emissions totals were developed. The quality assurance procedures have been determined to be adequate and acceptable. We conclude that Ohio has developed inventories of VOC and NO_x emissions that are comprehensive and complete.

C. Did the State Provide for Public Review of the Requested SIP Revision?

OEPA notified the public of the opportunity for comment both in newspapers and on OEPA's website. A public hearing was

held on June 24, 2014. No comments on the emission inventories were received.

IV. Final Action

We are approving an Ohio SIP revision submitted to address the ozone-related emission inventory requirements for the Cleveland-Akron-Lorain, Columbus, and Ohio portion of the Cincinnati ozone nonattainment areas for the 2008 ozone NAAQS. The emission inventories we are approving into the SIP are specified in Tables 1, 2, and 3 above. We are approving the emission inventories because they contain comprehensive, accurate, and current inventories of actual emissions for all relevant sources in accordance with CAA sections 172(c)(3) and 182(a), and because Ohio adopted the emission inventories after providing for reasonable public notice and a public hearing. Finally, we are also confirming that Ohio has acceptable and enforceable stationary annual emission statement regulations for the 2008 ozone standard.

We are publishing this action without prior proposal because we view this as a noncontroversial amendment and anticipate no adverse comments. However, in the proposed rules section of this Federal Register publication, we are publishing a separate document that will serve as the proposal to approve the state plan if relevant adverse written comments are filed. This rule will be effective **[insert date 60 days after the date**

of publication in the Federal Register] without further notice unless we receive relevant adverse written comments by **[insert date 30 days after the date of publication in the Federal Register]**. If we receive such comments, we will withdraw this action before the effective date by publishing a subsequent document that will withdraw the final action. All public comments received will then be addressed in a subsequent final rule based on the proposed action. EPA will not institute a second comment period. Any parties interested in commenting on this action should do so at this time. Please note that, if EPA receives adverse comment on an amendment, paragraph, or section of this rule and if that provision may be severed from the remainder of the rule, EPA may adopt as final those provisions of the rule that are not the subject of an adverse comment. If we do not receive any comments, this action will be effective **[insert date 60 days after the date of publication in the Federal Register]**.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as

meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of

Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a "major rule" as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by **[insert date 60 days after date of publication of this document in the Federal Register]**. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of today's Federal Register, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. (See section 307(b)(2).)

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Dated: February 22, 2016.

Robert A. Kaplan,
Acting Regional Administrator, Region 5.

40 CFR part 52 is amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

2. Section 52.1885 is amended by adding paragraph (mm) to read as follows:

§ 52.1885 Control Strategy: Ozone.

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(mm) On July 18, 2014, Ohio submitted 2008 volatile organic compounds and oxides of nitrogen emission inventories for the Cleveland-Akron-Lorain and Columbus ozone nonattainment areas and for the Ohio portion of the Cincinnati, Ohio-Kentucky-Indiana ozone nonattainment areas as revisions to the Ohio state implementation plan. The documented emission inventories are approved as a revision of the state's implementation plan, meeting emission inventory requirements for the 2008 ozone national ambient air quality standard.